EngPro Solutions

Case study – BD Engineering Limited

Introduction

For the purpose of this case study you are to assume you are an external change manager that has been brought in to lead a change in BD Engineering Limited (BDEL). During the change you will use the internal resources of BDEL, and you must manage all the stakeholders. You have an office onsite with BDEL and you are working full-time, as an embedded de-facto employee. The duration will be roughly six months.

Your change assignment

BDEL is a transport sector company providing maintenance services for its parent company BD Rail limited. BD Rail limited undertakes a complex network of services both long distance and short commuter traffic. BD Rail has for many years had a very profitable business but with recent changes to the economy and advancements in European ownership in other areas of the network, the company now finds itself in decline with operating loses generating cause for concern in the boardroom.

Aside from fixed fuel and rent costs, the biggest single cost is engineering. BD Rail is therefore putting significant pressure on the Engineering Director, Kate James, of BDEL to reduce costs. BDEL is a wholly owned subsidiary of BD Rail. The industry has lived in a world where costs were not under significant pressure and profits were handsome, more recently this has become a challenge.

Kate James brought in a group of external experts from your company to review her business and their highly confidential summary findings were:

- 1. A change of philosophy to a more proactive, plan-led culture is required
- 2. Business process needs re-mapping to ensure no resources are being perished
- 3. The roles of Fleet Manager are outdated and longer serving the business well; it needs to change to (possibly) a single Head of Production

As you are your company's change specialist, Kate has specifically requested you to join her to deliver the change programme for her. Your role is to set up and manage the change project.

Company background

BDEL has been operating since 1921, it employs around 600 people and has two main sites, one close to London and one in the Country. Originally these two sites were in different companies that were merged 12 years ago. Processes were never fully aligned at that time and reporting and culture are different; in fact, to this day some terms and conditions remain mis-aligned. Each site has a Fleet Manager who is pretty much 'master of their domain'; there personalities and drivers are described below. The operating model, or probably more accurately model(s), was set up by these Fleet Managers several years ago, they are both slightly different to each other and neither is proactive. Both sites were reported by Kate James' analysis to be significantly under producing, and inefficient and contributing to the cost overruns presently needing controlled.

Until the last three years cost has never been an issue as there was a government backed scheme that effectively masked any cost overruns, and the report highlighted that for many years costs have been effectively 'buried news'. Due to recent spending reviews from a change in UK government, 4 years ago the government scheme was removed. The parent company had good cash reserves and as management eyes were on service performance more than costs the financial situation was not immediately clear. The Parent (to BDEL) was sold three years ago to a joint venture including a business



based in the Netherlands, where the rail network is much more competitive and by natural selection costs were much better controlled. During the due diligence process the parent FD was replaced and it is the new FD that has highlighted the concerns around the cost of engineering. The Board are considering many options including outsourcing the maintenance, by selling off BDEL; but to do anything they need cost competitive maintenance.

Kate is the most senior person in BDEL and reports directly to the parent Board; at present she has not shown the Board the report but intends to give a presentation that she will seek help delivering.

This change is significant in duration and depth and requires a good understanding of change management to bring it successfully to closure.

(Relevant) Company performance

The following information is from the initial analysis that your company undertook following Kate's request. None of this information was available readily in a management pack for example. Your data analyst team mined this information from various business systems. Kate has seen this, but it has not been explained in full details – it is your information to use as you see fit to assist developing any raison d'etre

Profit and Loss – the FD provided an abbreviated set of accounts

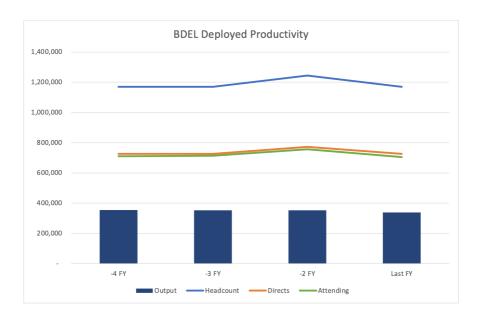
	x000	-4 FY	-3 FY	-2 FY	Last FY	forecast
Sales		25,341.52	26,569.66	26,664.42	26,663.54	26,660.00
Cost of sales		526.65	537.18	547.93	558.89	570.06
Direct wages		15,643.45	16,269.19	16,919.96	18,950.35	21,224.39
Operating margin		9,171.42	9,763.29	9,196.54	7,154.30	4,865.54
Staff wages		2,578.34	2,629.91	2,682.50	2,736.16	2,790.88
Materials		325.56	332.07	338.71	345.49	352.40
Facilities		1,834.32	1,871.01	1,908.43	1,946.60	1,985.53
Travel and Subsitence		986.34	1,006.07	1,026.19	1,046.71	1,067.65
Misc		875.20	892.70	910.56	928.77	947.34
Total overheads		6,599.76	6,731.76	6,866.39	7,003.72	7,143.79
Net margin (EBITDA)		2,571.66	3,031.53	2,330.15	150.59	(2,278.25)
		10%	11%	9%	1%	-9%

Deployed productivity and labour analysis – generated by your data analysts

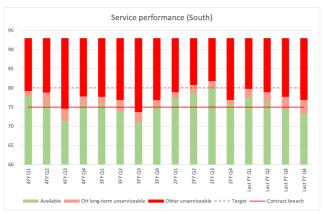
Labour hours analysis

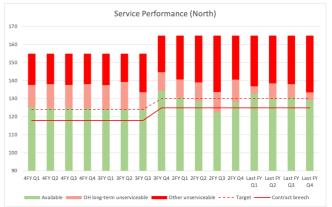
	-4 FY	-3 FY	-2 FY	Last FY
Headcount	1,170,000	1,170,430	1,245,000	1,170,430
Directs	725,400	725,667	771,900	725,667
Leave	7,254	7,257	7,719	7,257
Sick	5,078	2,177	3,088	8,708
Training	2,176	2,177	4,631	4,354
Attending	710,892	714,056	756,462	705,348
Output	353,865	352,921	351,923	338,456
Productivity of Output (Po)	49%	49%	46%	47%
Deployed productivity (Pd)	30%	30%	28%	29%





Service performance – collated by your data analysts, not in this form on any management pack





Service performance (South)																
	4FY Q1	4FY Q2	4FY Q3	4FY Q4	3FY Q1	3FY Q2	3FY Q3	3FY Q4	2FY Q1	2FY Q2	2FY Q3	2FY Q4	Last FY Q1	Last FY Q2	Last FY Q3	Last FY Q4
Vehicles in fleet	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
OH long-term unserviceable	1.4	3.2	3.1	2.2	1.8	3	2.7	1.6	1.7	2.1	1.6	1.1	2.2	2.7	3.1	3.5
Other unserviceable	13.8	14.2	18.4	15.2	15.3	16.1	19.3	16.2	14.1	12.2	11.2	16.1	13.2	14.1	15.3	16.1
Available	77.8	75.6	71.5	75.6	75.9	73.9	71	75.2	77.2	78.7	80.2	75.8	77.6	76.2	74.6	73.4
Target	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Contract breech	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
% Availability (average)	97%	95%	89%	95%	95%	92%	89%	94%	97%	98%	100%	95%	97%	95%	93%	92%
Asset utilisation	84%	81%	77%	81%	82%	79%	76%	81%	83%	85%	86%	82%	83%	82%	80%	79%

Service performance (North)																
	4FY Q1	4FY Q2	4FY Q3	4FY Q4	3FY Q1	3FY Q2	3FY Q3	3FY Q4	2FY Q1	2FY Q2	2FY Q3	2FY Q4	Last FY Q1	Last FY Q2	Last FY Q3	Last FY Q4
Vehicles in fleet	155	155	155	155	155	155	155	165	165	165	165	165	165	165	165	165
OH long-term unserviceable	12.2	13.1	12.7	13.3	13.3	15.2	9.8	10.4	10.1	10.5	11.2	12.4	4.2	8.6	7.3	4.2
Other unserviceable	17.3	16.9	17.3	16.9	17.4	15.7	21.4	20.2	24.3	25.9	31.3	24.4	28.1	26.4	26.9	31.5
Available	125.5	125	125	124.8	124.3	124.1	123.8	134.4	130.6	128.6	122.5	128.2	132.7	130	130.8	129.3
Target	124	124	124	124	124	124	124	130	130	130	130	130	130	130	130	130
Contract breech	118	118	118	118	118	118	118	125	125	125	125	125	125	125	125	125
% Availability (average)	101%	101%	101%	101%	100%	100%	100%	103%	100%	99%	94%	99%	102%	100%	101%	99%
Target utilisation	81%	81%	81%	81%	80%	80%	80%	81%	79%	78%	74%	78%	80%	79%	79%	78%



Staff engagement survey – from the HR Director

	-4 FY	-3 FY	-2 FY	Last FY
Ave age Tech (south)	31.2	30.4	31.3	32.1
Ave age Tech (north)	46.4	47.2	48.0	48.8
Ave age Tech (company)	38.8	38.8	39.7	40.5
% Techs over 57 (south)	7.5	6.3	6.4	6.9
% Techs over 57 (north)	17.7	18.5	20.4	21.2
% Techs over 57 (company)	12.6	12.4	13.4	14.1
Staff engagement (south)	53.0	49.5	47.3	44.4
Staff engagement (north)	83.1	88.4	82.4	91.2
Staff engagement (company)	68.1	69.0	64.9	67.8
Lost time accidents (south)	2.0	1.0	1.0	1.0
Lost time accidents (north)	2.0	2.0	2.0	3.0
Lost time accidents (company)	2.0	1.5	1.5	2.0

Your change assignment

For the purposes of the exercise assume your role as Change Manager is to:

- Define the issues
- Develop the scope
- ♦ Plan the change
- Support Kate to embed the new culture
- ♦ Cause the business process to be re-mapped
- Define success measures
- Facilitate the change as BAU

We will go through all these step by step during the workshop, you will use this study as the template to work from.

Change perspective

From discussions with Kate, it seems there are several key objectives this change must tackle:

- 1. **Combined Fleet** instead of having a north and south fleet, Kate wants the business to have one fleet managed more centrally for the betterment of the customer and the business. This will require the outdated business processes to be re-mapped and introduced.
- 2. **Planning team** a centralised planning team is probably required, as the planning at the dispersed sites is ineffective and not delivering what the business needs. This is a complete departure from 30 years of working practices and will require significant change in approach and philosophy to maintenance.
- 3. **Senior team re-structure** Kate is considering careful the recommendation to restructure her leadership team and having one role, Head of Production, instead of the two roles of Head of Fleet.
- 4. **Customer focussed** she wants the business to be more focussed on both internal and external customers

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Case study – BD Engineering Limited

People background

Kate James: Has several years' experience in engineering and is a graduate engineer. She has held many posts prior to this one and joined BDEL 18 months ago as the Engineering Director, her first post as a Director. A highly motivated and professional person who has aspirations to become a Managing Director one day. Kate's previous roles have been mainly technical, and she has a strong eye for detail. In the industry she is in, Kate is the only female Engineering Director in the UK. Your main point of contact thus far has been with Kate, so you have a good perspective of where she wants the business to go; the change perspective is essentially her words. She has confided to your company that she is not too sure where her direct reports 'are' in relation to the change; she can't work out if they are on or off the bus.

Dave Hutton: Dave is the Fleet Manager for the northern fleet that is operated out of the country depot. His has been in this post for 12 years, recruiting many of the staff that are in place now. As such, he appears to know all the staff well and they like him and his management style very much. Last year's engagement survey was only filled in by 32% (company average 67%) of his staff, but those that did fill it in had very high engagement levels — the best in the business. He is known to be quite conservative in approach and has 28 years of experience, many at Fleet Manager level. In the analysis report, which Kate showed you, but is marked highly confidential, Dave is described as a 'highly controlling manager'. It further goes on to indicate that Dave has openly raised concerns regarding the change of operating model and believes he is already incorporating a plan-led model. The output of his depot is below the national average and he has high workforce to vehicle ratio numbers.

James Counter: James is the Fleet Manager for the southern fleet, based in the depot close to London. He has a high turnover of staff at his depot, this is noted as common for the London area. The number of vehicles that go through maintenance at this location is high, and there are added complications of contractor always working parties in the site. The fleet is very old and under performs regularly failing in service. James indicated that he welcomes a more plan-led approach as he never has time for proper maintenance. His depot is presently undermanned. In the report that your company presented to Kate it was indicated that many of James' team were unhappy with his style of leadership, feeling he gives too many orders then walks away.

lan Baker: Is the newest member of Kate's management team, he joined the company 12 months ago, having been recruited by Kate herself. Ian is very intelligent and ambitious and wants one day to become a director himself. He presently heads up the engineering team, but he and Kate have had discussions and he is likely to be heading up the newly formed centralised planning team in the future. The report of lan's conduct was very supportive, he is highly motivated and wants the plan-led approach to work. This is his first senior management post and his role is graded at 1 level below the Fleet Managers although he reports directly to Kate.

Workshop preparation:

Ahead of the workshop consider the information you have in front of you. It is deliberately not a complete picture so assume what is said is true. Make notes below regarding your role as the change manager and what questions you might like to be asking to establish and run this project successfully.

During the workshop we will explore this in more detail – as we learn! Howard,



Your notes